

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 November 2003 (06.11.2003)

PCT

(10) International Publication Number
WO 03/092321 A1

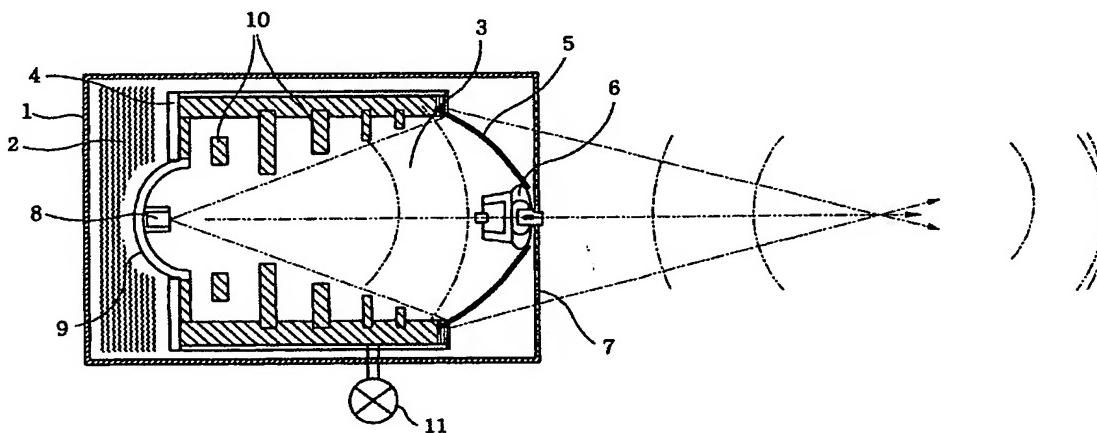
- (51) International Patent Classification⁷: **H04R 1/00**, 1/02, 1/34
- (21) International Application Number: **PCT/KR03/00840**
- (22) International Filing Date: 25 April 2003 (25.04.2003)
- (25) Filing Language: Korean
- (26) Publication Language: English
- (30) Priority Data:
10-2002-0022639 25 April 2002 (25.04.2002) KR
- (71) Applicant (for all designated States except US): **POSTECH FOUNDATION [KR/KR]**; San 31, Hyoja-dong, Nam-gu, Pohang-shi, Kyungsangbuk-do 790-784 (KR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **LEE, Jay-Min** [KR/KR]; Postech Faculty Residence Apt. D-1202, 756 Jigok-dong, Nam-gu, Pohang-shi, Kyungsangbuk-do 790-751 (KR).
- (74) Agent: **JANG, Seong-Ku**; 17th Fl., KEC Building 275-7 Yangjae-dong, Seocho-ku, Seoul 137-130 (KR).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SOUND FOCUS SPEAKER OF GAS-FILLED SOUND LENS ATTACHMENT TYPE



WO 03/092321 A1

(57) Abstract: A sound focus speaker adopting a gas-filled sound lens enhances efficiency of transferring sound from a source to target area and of protecting a spread of transferred sound. The sound focus speaker includes a gas-filled sound lens, sound sources for generating sound and a sound-absorption room for surrounding the sound lens and the sound sources. Sound emitted from the sound focus speaker is focused at specific distance to make a focus point and not spread to the outer of the focus point form forming a sound area.